

[Name of Document] Abstract

[Abstract]

[Problem] An IPS (In-Plane Switching) liquid crystal display is disclosed that maintains excellent display uniformity and high aperture ratio as well as high yield during fabrication.

[Means for solving the problem]

A liquid crystal display according to this invention includes a first transparent substrate 13 which is provided with pixel electrodes 22 and common electrodes 16 substantially parallel and alternately arranged on a transparent insulating substrate, a plurality of pixels arranged in matrix form, scan lines 30 and switching elements 32 that individually control electric fields applied to pixel electrodes of the pixels, signal lines 20 and a first alignment layer 52 formed on the highest layer, a second transparent substrate 15 arranged to confront the first transparent substrate, and a liquid crystal component layer 44 sealed between the first transparent substrate and the second transparent substrate. The direction of initial orientation of liquid crystal molecules in the aperture regions 52 has an inclination of any angle  $\theta$  other than  $0^\circ$  and  $90^\circ$  with respect to the longitudinal direction of the pixel

electrodes. In regions other than the aperture regions 54A and 54B, the direction of initial orientation of the liquid crystal molecules is orthogonal to the longitudinal direction of the pixel electrodes when the dielectric constant anisotropy of the liquid crystal molecules is positive, and parallel to the longitudinal direction of pixel electrodes when the dielectric constant anisotropy is negative.

[Selected figure] Fig. 2